

The 2003 FIRST Robotics Competition
TEAM UPDATE # 4

Date: **January 14, 2003**

PLEASE DISTRIBUTE THIS TO OTHER TEAM MEMBERS!

FIRST will provide rules updates and other important information to teams via the FIRST web site at:

<http://www.usfirst.org/robotics/2003/docs.htm>

Please check the team updates portion of the web site on a regular basis to insure that your team does not miss critical information about the 2003 FIRST Robotics Competition. FIRST recommends assigning at least one team member the duty of keeping up to date on all team updates. This person or group should be responsible for distributing information contained in team updates to the appropriate team members.

<p><u>QUESTIONS?</u></p>

MESSAGE BOARD

In order to post questions on our message board at:

<http://jive.ilearning.com/index.jsp>

- **You must reference the particular section of the manual you are questioning or your question will not be answered. This will help us give you the most accurate answer possible.**
- **Limit each message board submittal to ask only 1 question at a time. This will allow us to categorize your question and will enhance our ability to respond in a timely manner.**
- **Please state your inquiry as a question. Some submittals have been lengthy and we have had a great deal of trouble trying to find the question buried within.**
- **Do not reply to posted messages. FIRST is the only official source for answers. Your replies to posted questions slow down the moderating of this forum. Replies other than from FIRST will be deleted.**

AUTODESK, INC. – Correction on How to Contact Autodesk

For all inquiries, please e-mail:

first.entries@autodesk.com

THE GAME

PAGE 10/11, RULE SC9

Oops! SC9 was not changed in the last update to supplement the changes to SC8... so here it is now. Sorry for the disconnect!

Replace SC9 with the following:

- SC9** When identifying the multiplier stack, the referees will base their evaluation on the following criteria:
- Only stacks located “in” a scoring zone (as defined in SC8) are eligible to become multiplier stacks;
 - The tallest stack in the alliance scoring zone will be determined to be the multiplier stack. Its height is measured in whole Stack Height Units (SHU) as described previously in *Section 7.6*;
 - Multiplier stacks must have a continuous chain of contact through a set of containers from the Scoring Zone (stack starts with a container touching the carpet in the Scoring Zone) to the highest point on the stack (e.g., stacks supported EXCLUSIVELY by an opponent robot, in which there is no direct contact between the stack and the Scoring Zone, are ineligible to be the multiplier stack – any containers in such a stack are only included in the base score, as identified in Rule SC8).
 - If ANY part of an alliance robot is in contact with ANY container in a stack, that stack will not be eligible to be the multiplier stack. In this event, the next-tallest stack will become the multiplier stack;
 - There will be only one multiplier stack. If there are multiple stacks of the same height, the redundant stacks will be scored normally as part of the alliance base score;
 - Opponent robot contact with a stack will not affect multiplier stack eligibility.

THE ROBOT

SNAP ACTION CIRCUIT BREAKERS

Unfortunately, the 40A Snap Action Maxi-style auto-resetting circuit breaker is not yet available but should be shortly. In the interim, it is acceptable to use the extra 30A breakers (FIRST shipped each team extra 30A breakers) with the CIM and ½” drill motors. The best solution, however, is to use the 40A breakers for this application when you receive them.

ROBOT “ASSEMBLIES”

There has been a plethora of questions about robot assemblies so, to make this abundantly clear and to **mercifully** constrain the assembly possibilities, Rule M5 is modified as follows:

PAGE 17, RULE M5

Change the last sentence in Rule M5 to be a bullet.

Add to Rule M5:

- The robot and all of its mechanisms combined must adhere to Rule K3 (cost);

- The robot and all of its mechanisms combined can only have 1 control system and can use only the motors in the 2003 Kit of Parts in the quantity provided.

PAGE 20, RULE M17

This rule was drafted to attempt to prevent damage to our playing field, which includes the ramp structure, field borders, etc. Because we allow you to fabricate a wheel, it really doesn't make much sense for us to say:

“The outer surface of off-the-shelf wheels may be modified by removing tread material only.”

Please delete this sentence; however, now we need to address the issue of “anti-traction” devices or anchors, i.e., devices designed to hold you firmly in one place. Anchors cannot use metal in contact with the carpet to “stay put.” Similarly, metal traction or anchor surfaces are not allowed on the ramp surfaces.

Add the following to Rule M17:

Anchors, i.e., devices that are deployed/used to attempt to keep one's robot in one place and to prevent from being moved by another robot, cannot use metal in contact with the carpet to “stay put.” Similarly, metal traction or anchor surfaces are not allowed on the ramp or platform.

PAGE 25, RULE K3

There is still some confusion about how to account for purchased parts vs. fabricated parts, particularly when the labor for parts is donated. Try this:

- If you were billed, it counts in the cost;
- If a machine shop makes a part and **involves** the students, you can consider the shop as an educational/inspirational sponsor and its labor does not have to be counted. While the term “involves” is not precise and leaves a bit of interpretation up to the individual teams, any shop that spends time with the students to explain the planning, processes, material considerations, safety concerns when operating shop machines, etc., will have “involved” the students and met the spirit of this rule.

This interpretation of this rule is to encourage community involvement with the teams while exposing the students to science and technology.

<u>KIT OF PARTS</u>

MISSING OR BROKEN

For any missing parts or broken parts, please contact us at:

freparts@usfirst.org

LATE SHIPMENT

The 40A breakers are not yet available.

The following items were shipped yesterday, Monday 1/13/2003, via FedEx 2nd day.

1. SMC pneumatic parts:
 - Double Solenoid Base Ported Valve
 - Flow Control
 - Fitting, Straight 1/4" Tube
 - Fitting, 90 Elbow 1/4" Tube
 - Fitting, Tee Union 1/4" Tube
 - Fitting, Male Run T 1/8 NPT ~ 1/4" Tube
 - 1/4" OD Tubing
2. Metric key stock; fits the shaft on the CIM (Chiaphua/Atwood) motor only; size is 0.079" x 0.094" x 1"; 2 pieces
3. Reflexite retro-reflective tape, 8" sample
4. Various decals/stickers.

FIELD

The distance from the field surface to the underside of the lower pipe of the truss on either side of the platform/ramp structure at midfield is:

14-5/16" +/-

We build our fields in many different venues with several types of floors and **we cannot guarantee the exact distance under this pipe.** Allow for variations of as much as 1/2" or more.

The surface of the angle aluminum that makes up the bottom portion of the field border that contacts the carpet and faces into the playing field is 3" tall.

AUTODESK

There are none for this update.